This portable bin (figure 1) provides a convenient way to compost yard materials. It fits well in small spaces and may be used either as a holding bin or as a portable turning unit. To turn the pile, harvest the finished compost, or build a new pile, simply undo the latches, pull the sides apart, and move the bin. To turn the pile, simply transfer the composting materials back into the empty bin at its new location.

**Cost:** About $100 with new materials; less if recycled materials are used

**Capacity:** Eight to ten 30-gallon bags of yard materials

**Degree of difficulty:** ✪ ✪ ✪ Above-average building skills needed

### How to construct

#### MATERIALS

- Four cedar or non-arsenic pressure-treated 2 x 4s, 12’
- ½” hardware cloth, 36” wide, 12’
- 100 galvanized No. 8 wood screws, 1½”
- Four galvanized butt door hinges, 3”
- 150 poultry wire staples or power stapler
- One tube exterior wood adhesive, 10 oz.
- Four large hook-and-eye gate latches

#### TOOLS

- Hand saw and chisel, radial arm saw with dado blade, circular saw, or table saw
- Hammer
- Screwdriver
- Tin snips
- Caulking gun
- Pencil
- Small carpenter’s square
- Eye and ear protection

**Figure 1.** Wood and wire composter
DO-IT-YOURSELF COMPOST BINS

CONSTRUCTION DETAILS

1. Cut each 12’ 2 x 4 into four 3-foot-long pieces.

2. Cut a \(\frac{3}{4}\)-deep and \(3\frac{1}{2}\)-wide section out of each end, for a total of 32 lap cuts.

3. **If using handsaw and chisel**: Cut \(\frac{3}{4}\)" down at the \(3\frac{1}{2}\)" line at A (figure 2). Then cut a deep groove into the end of the board at B. Place a thick wood chisel in the end of groove and split the wood with a hammer to the \(3\frac{1}{2}\)" cut.

4. **If using a radial alarm saw, circular saw, or table saw**: Set the blade depth to \(\frac{3}{4}\)" and make multiple passes until the whole \(3\frac{1}{2}\)" section is removed.

5. Make four 3-foot square frames from the lap-jointed 2 x 4s. Add enough wood adhesive to fill the gaps when the lap joints are screwed together. Fasten each joint with five screws.

6. Use tin snips to cut the hardware cloth into four 3-foot-square sections. Bend the edges of the cloth back over 1" for strength. Lay one onto each of the four frames. Center and tack each corner with a poultry wire staple. Hammer staples in every 4" along all four edges of the hardware cloth. Try to hold the cloth taut so it will not sag when filled with compost.

7. Connect each pair of frames together with two hinges, so the wire is on the inside of the bin, as shown (figure 3).

Now you are ready to start using your bin and begin composting! Simply mix one part green (nitrogen) materials with two parts brown (carbon) materials (table 1), keep the materials as damp as a wrung-out sponge, and use a small shovel, pitchfork, or garden fork to mix the contents from time to time.

**TABLE 1. Materials for composting**

<table>
<thead>
<tr>
<th>Brown materials (2 parts)</th>
<th>Green materials (1 part)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Dry leaves</td>
<td>- Green leaves</td>
</tr>
<tr>
<td>- Twigs less than (\frac{1}{4})&quot; in diameter</td>
<td>- Grass clippings</td>
</tr>
<tr>
<td>- Shredded newspaper</td>
<td>- Weeds (before they have gone to seed)</td>
</tr>
<tr>
<td>- Shredded household cardboard: egg cartons, paper towel, and toilet paper rolls</td>
<td>- Leftover plants at the end of the season</td>
</tr>
<tr>
<td></td>
<td>- Coffee grounds</td>
</tr>
<tr>
<td></td>
<td>- Fruit and vegetable scraps</td>
</tr>
<tr>
<td></td>
<td>- Eggshells</td>
</tr>
</tbody>
</table>

**Do not compost**: Meat, bones, grease, whole eggs, dairy products, diseased or highly invasive plants, pet waste.

Figure 2. Section detail

Figure 3. Connecting the frames

*Source: Adapted with permission of the Seattle Engineering Department’s Solid Waste Utility and the Seattle Tilth Association.*
Resources

For more information on composting, including the Wisconsin Master Composter Program, contact:

Solid & Hazardous Waste Education Center (SHWEC)
www.uwex.edu/ces/shwec
Joe Van Rossum, Recycling Specialist
joseph.vanrossum@ces.uwex.edu
608-262-0385

Composting to Reduce the Waste Stream
(NRAES-43)
Plants and Life Sciences Publishing (PALS), Cornell Cooperative Extension
http://palspublishing.cals.cornell.edu/nra_order.taf?_function=detail&pr_booknum=nraes-43

Master Composter Resource Manual
Cornell Waste Management Institute
cwmi.css.cornell.edu/
mastercompostermanual.pdf

These publications are available from the Learning Store (learningstore.uwex.edu):

Compost (A4021)

Do-it-Yourself Compost Bins series
- Barrel Composter (G4020-01)
- Can Composter (G4020-02)
- Concrete Block Composter (G4020-03)
- Wire Mesh Composter (G4020-04)
- Wood and Wire Composter (G4020-05)
- Wood Pallet Composter (G4020-06)
- Wood 3-Bin Composter (G4020-07)

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Author: Joe Van Rossum is Recycling Specialist and Director at the Solid & Hazardous Waste Education Center (SHWEC), UW-Extension. Cooperative Extension publications are subject to peer review.

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